TO All EMS/Dispatch Agencies

FROM Bruce G. Cheney, ENP

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RE Emergency Medical Dispatch System Protocol Upgrades

The NH Department of Safety, Bureau of Emergency Communications has been preparing a complete software upgrade to accommodate a medically-approved enhancement to our medical calltaking system. With the recent concerns around the "swine flu" outbreak in the US and its potential appearance in NH, the Bureau has chosen to move forward rapidly in our implementation of the release of version 12.0 of the Medical Priority Dispatch System© which features the most thorough medical dispatching guidelines yet from the National Academies of Emergency Dispatch® (NAED).

The importance of this move allows us to respond to changing conditions in public health; specifically, the use of a new Protocol 36 to address pandemic flu. This Protocol determines whether patients initially presenting with the chief complaints of Breathing Problems (P-6), Chest Pain (P-10), Headache (P-18), Sick Person (P-26), is a likely flu patient or a non-infected patient. Different reduced responses (or referrals to Pan Flu hot-lines, and even quarantining) can be initiated based on these codes. Three suffixes, based on local public safety needs (increased call load and/or reduced EMS response personnel availability), allow for a three-step decreasing level of EMS response deployment.

The new features in MPDS v12.0 increase the effectiveness and efficiency of call processing. It handles more types of incidents than ever before, with 54 new Determinant Descriptors and suffixes.

The Protocol, especially in its latest version, provides an efficient and effective tool for call takers to process emergency and nonemergency calls in a standardized method. The level of service and safety provided for their citizens and responders has again been enhanced, with input from industry experts and from the nearly 3000 communications centers that use the protocol worldwide.

This change will have little effect to our end-users of the system. However, if you are one of the many agencies that utilize the MPDS for response deployment and/or billing, you will be a need to become more familiar with the new and updated Determinant Descriptors. We will be happy to assist you in this endeavor and provide you with a sampling of resource utilization strategies.

Key changes in v12.0 include splitting severe respiratory distress (SRD) situations into changing color, difficulty speaking between breaths, or both. Each Chief Complaint Protocol formerly containing SRD has been individually evaluated to determine which of the replacement definitions apply to that Chief Complaint. In some cases, this has required some revision to the Key Questions in order to lead the EMD to the correct Determinant Descriptor.

A major change has been the addition of a Determinant Descriptor for "Unconscious or Arrest" to trauma protocols 14, 17, 21 and 30 with corresponding dispatch points added to the Key Question sequences. These additions greatly simplify the process of selecting the most appropriate protocol for cardiac arrest cases when trauma is involved.

Included in the revised PAI's are new High Risk Childbirth Protocols as well as standard-setting sequence of "Compressions First" CPR. This has implemented for victims of cardiac arrest not

likely to be of respiratory origin. The result was a dual pathway of CPR instruction, specific to cardiac arrest etiology, which put into practice a relatively new resuscitation concept which has revolutionized how CPR is delivered in the dispatch environment

Through a combination of science review and expert consensus, the NAED has developed and approved a dispatch-specific protocol that reflects the new AHA guidelines. Notable enhancements include changes to the compressions to ventilations ratio of CPR, modifications to breathing evaluation scripts, and alterations to instructions regarding compressions and ventilations. Among other advantages, these new protocols allow for enhanced evaluation of agonal versus effective breathing in the unconscious patient, which facilitate rapid, effective treatment of patients experiencing cardiac arrest, and simplify the CPR entire process for untrained callers, which was a primary goal of the new AHA guidelines.

Additionally, the Automatic External Defibrillator (AED) Support Protocol was augmented to reflect a consensus recommendation of a single, initial shock, followed by a therapeutic two minutes of CPR prior to the next series of shocks. This is because evidence now strongly suggests that after four to seven minutes of cardiac arrest, compressions may chemically enhance the therapeutic value of defibrillation. Because AED use is now recommended for children as well as adults, the new protocol instructs callers to retrieve and use, if needed, an AED for patients greater than one year of age. Instructions to retrieve an AED were further refined by calculating the Cardiac Arrest Quotient (CAQ) of individual Determinant Descriptor codes of the MPDS. Research has shown that cardiac arrest is more likely among specific codes. Therefore, instructions to retrieve an AED can be logically based on such CAQ probabilities, and inappropriate AED retrieval can be reduced.

In addition to the enhancements to the resuscitation protocols, the National Academies of Emergency Dispatch have incorporated new AHA first-aid guidelines for elapid snakebite, avulsed teeth, prescribed inhaler use for asthma patients, an aspirin diagnostic and instruction tool and spinal stabilization for victims of trauma into existing protocol.

Other improvements include enhancing the Stroke Protocol to enable better chief complaint selection and ASA protocol for providing Aspirin in times of suspected MI.

The addition of an OMEGA (referral) Determinant Descriptors:
+ Carbon monoxide detector alarms (without priority symptoms) to Protocol 8 – Carbon Monoxide / inhalation / Hazmat
+ Expected Death that is unquestionable to Protocol 9 – Cardiac or Respiratory Arrest / Death
+Public Assists\ with no injuries and no priority symptoms in Protocol 17 – Falls
+Waters broken with no contractions in Protocol 24 – Pregnancy / Childbirth / Miscarriage
+Confirmed No Injuries in Protocol 29 – Traffic / Transportation Accidents

Additionally, a 33rd protocol, Transfer / Interfacility / Palliative Care, which was introduce in v11.3, has been enhanced to offer a response level based on a joint medical professional and EMD evaluation of the patient's medical condition and basic clinical signs. This occurs when urgent, unscheduled transport of a patient's is requested from medical environments such as Extended care facilities, Hospice, Nursing facilities and Palliative home care attended by a medical professional.

There are numerous internal changes within the protocol that our external partners will not need to be concerned with. Changes such as font, color, structure, syntax are items we have trained on within our ongoing EMD continuing education programs.

We are always willing to work with you to meet your needs. If you have any questions or wish to schedule an in-service for your agency, please call us at 271-6911 your convenience.-